DRAFT

Proposed Principles for Laying Submarine Cables in the Marine and Coastal Environment

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I. INTRODUCTION

Our oceans contain resources of enormous potential benefit to many different interests. Therefore it is critical that these resources are managed carefully to ensure appropriate economic development exists side-by-side with forward-looking environmental conservation and management.

The Department of Commerce (DOC) has stewardship responsibilities for the nation's business interests and its marine and coastal environment. These two responsibilities converge on the issue of submarine cables. The Department's National Oceanic and Atmospheric Administration (NOAA) manages and regulates the nation's marine resources to ensure their sustainability. The Department's National Telecommunications and Information Administration (NTIA) works to spur innovation, encourage competition, help create jobs, and provide consumers with more choices and better quality telecommunications products and services at lower prices.

We have seen the rapidly increasing demand for telephone, Internet and data transmissions. Fiber optic cable, in particular, has a higher transmission capacity, higher reliability for uninterrupted service, greater security, and cost efficiency. Thus the number of project proposals and specific permit requests to authorize the laying of submarine cables in the marine and coastal environment are increasing rapidly. Such cables are important to the continued growth of the economy, and they also bring societal benefits through improved education, opportunity, and connectivity. However, protecting the marine environment, particularly in sensitive areas such as national marine sanctuaries, is also important.

Federal, state, and local governments impose authorizations and permitting requirements for all forms of development. The types of issues that are evaluated for a proposed submarine cable project include, but are not limited to: cable route planning, cable installation (e.g., burial), operation, maintenance and repairs, and removal. The review and authorization processes take time and cost money.

At the same time, protecting the marine and coastal environment is imperative. Marine resources provide economic, cultural, and societal benefits to the nation. With the rapidity of growth and development in the coastal zone, these resources are at risk of degradation and loss. A sample of the type of environmental issues or topics that need to be evaluated for any proposed submarine cable project include national marine sanctuaries, sensitive marine habitats, water quality, marine mammals, submerged cultural resources, fishing activities, endangered species, cumulative effects, and esthetic values.

NOAA and the Department are faced with reconciling the inherent value of growth in commerce with the conservation of trust marine resources. This requires solutions that consider the needs of all parties involved.

It is clear that the economy and environment both require informed planning, stewardship, and alliances. Consequently, the Department has strengthened its efforts to build productive partnerships among government, business and non-governmental organizations in order to achieve its stewardship objectives. This effort has led to a stakeholder process that gathers individual input to the agency's guiding principles for installation of submarine cables in the marine and coastal environment.

The purpose of this document is to present a set of guiding principles that articulates the Department's objectives with regard to potential proposals for laying submarine cables. These principles are clearly defined statements supported by a set of implementation strategies needed to achieve those principles.

This document is a work in progress. It results from a small intra-agency working group that came together to help achieve the goal of building productive partnerships among government, business, and non-governmental organizations. The group hosted two meetings.

The first meeting was held on December 15, 1999 and was a fact-finding meeting that allowed both industry representatives and members of the environmental community a chance to present their individual thoughts and concerns about the issue of submarine cables in the marine and coastal environment. The second meeting was held on February 14, 2000 and focused on the current state of the submarine cable industry, and the use and operation of such cables in the marine and coastal environment.

The working group will continue to improve the level of understanding and knowledge about the laying and operation of submarine cables. As new information develops, the principles and supporting action steps will evolve accordingly.

We welcome your suggestions and hope you will continue to work with us to develop successful approaches to achieving a healthy marine and coastal environment along with compatible economic development.

II. STATUTES AND AUTHORITIES

When considering a proposal to lay and operate submarine cables in the marine and coastal environment, the Department of Commerce must evaluate the industry's request relative to several statutes or authorities. These statutes provide the legal framework that governs decision-making. It is important to understand, however, that other federal, state, and local agencies have additional authorities that will govern the construction and operation of submarine cables.

The following describes the principal authorities governing this issue with which DOC must comply. Please refer to the full text of these laws for complete information.

National Marine Sanctuaries Act

The National Marine Sanctuaries Act (NMSA or Act), 16 U.S.C. 1431 et seq., provides authority for the establishment of a unique network of marine protected areas dedicated to the conservation of nationally significant areas of the marine environment. The National Marine Sanctuaries Program (NMSP or Program) is administered by the Marine Sanctuaries Division, within the National Oceanic and Atmospheric Administration (NOAA). The NMSP comprises 12 sanctuaries around the continental United States, including sites in American Samoa and Hawaii.

The primary objective of the NMSA is protection of sanctuary resources. Sanctuary resource is defined at 15 C.F.R. 922.3 as:

> Any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, research, educational, or aesthetic value of the sanctuary, including but not limited to, the substratum of the area of the sanctuary, other submerged features and the surrounding seabed, carbonate rock, corals and other bottom formations, coralline algae and other marine plants and algae, marine invertebrates, brine-seep biota, phytoplankton, zooplankton, fish, seabirds, sea turtles and other marine reptiles, marine mammals and historical resources.

The NMSP manages sanctuaries on an ecosystem approach to protect sanctuary resources and sanctuary biological, physical, and chemical qualities. When a sanctuary is designated NOAA develops a comprehensive management plan and regulations for the sanctuary. Sanctuary regulations prohibit a range of activities to protect sanctuary resources and qualities.

Consequently, when a regulation prohibits a particular activity, a determination has been made, after public notice and comment, that such activity is generally incompatible with the resource protection mandate of the NMSA, and with the purposes for which the

sanctuary was designated.

Relevant to submarine cables, all sanctuaries have some type of regulation that prohibits installation of such cables. Such regulatory prohibitions include those against: drilling into, dredging or otherwise altering the seabed of the sanctuary; constructing, placing or abandoning any structure, material or other matter on the seabed of the sanctuary; injuring benthic invertebrates; moving or injuring historical resources; and discharging or depositing any material or other matter in the sanctuary.

Prohibited activities may be conducted under certain limited circumstances to the extent they are compatible with the resource protection mandate and meet regulatory and other requirements for a sanctuary permit or other authorization. Sanctuary permits may be issued for research, education, management, or, in some instances, salvage activities. Some more recently designated sanctuaries have the authority to authorize another agency's permit for a specific activity, when such activity is compatible with resource protection and the purpose for which the sanctuary was designated. The NMSA also provides authority to issue special use permits for certain types of activities and NOAA may assess fees for the conduct of such activities.

The NMSA also statutorily prohibits destroying, causing the loss of, or injuring any sanctuary resource managed under law or regulations for that sanctuary.

Section 304(d) of the NMSA section 304(d) requires consultation on any Federal agency action internal or external to a national marine sanctuary, including private activities authorized by licenses, leases, or permits, that are likely to destroy, cause the loss of, or injure any sanctuary resources. Thus, for some proposed submarine cable projects that do not need a sanctuary permit or authorization but require another Federal agency's permit, consultation under the NMSA may be required.

The NMSA is applied in accordance with generally recognized principles of international law, and in accordance with treaties, conventions, and other agreements to which the U.S. is a party.

Endangered Species Act

The Endangered Species Act (ESA), 16 U.S.C. 1531 et seq., protects species of plants and animals that have been listed through regulations as threatened or endangered. A *threatened* species is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. An *endangered* species is any species, other than some species of the Class Insecta, that is in danger of extinction throughout all or a significant portion of its range.

The ESA and its implementing regulations prohibit the "taking" of any listed species, except under specified circumstances." A "take" is defined broadly and includes harassment, harm, pursuit, hunting, shooting, wounding, killing, trapping, capturing, or

collecting, or attempting to engage in any of these types of conduct. The Secretaries of the Departments of the Interior and Commerce may issue permits for the incidental take of listed species. The ESA includes civil and criminal penalties for violations.

The National Marine Fisheries Service (NMFS) of NOAA has jurisdiction over cetaceans, pinnepeds (except walruses), commercially harvested estuarine molluscs and crustaceans, marine fish, anadromous fish, certain other species (e.g., Johnson's seagrass), and sea turtles before they reach the beach. The U.S. Fish and Wildlife Service of the Department of the Interior (FWS) has jurisdiction over all other species, including seabirds. The provisions of the ESA extend to actions within the territory of the United States, state and Federal waters, and by U.S. entities on the high seas. For example, NMFS must ensure that its authorization of the conduct of a fishery is not likely to jeopardize the continued existence of any endangered or threatened species.

After a species is listed as threatened or endangered, NMFS or FWS is required to designate critical habitat and develop and implement recovery plans for the threatened and endangered species. Every Federal agency must ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat. Federal agencies must consult with NMFS or FWS to avoid, minimize, or mitigate the impacts of their activities on listed species.

Submarine cable projects will trigger this consultation process whenever a federal permit, license, or other action is needed for an activity that may affect a listed species. If a protected species or its critical habitat is present in the vicinity of the cable laying project a Biological Assessment must be prepared by the permitting agency. Essentially the permitting agency must demonstrate that the proposed project will not jeopardize any protected species or adversely modify their critical habitat, and describe those efforts being made to prevent any adverse effects to protected species. If they believe there are no applicable alternatives to the project and that the project will jeopardize the continued existence of a protected species they may apply to the Endangered Species Committee for an ESA exemption.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) 16 U.S.C. 1361 et. seq., establishes a moratorium on the "taking" of marine mammals within U.S. waters or by U.S. citizens on the high seas. "Taking" is statutorily defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal." DOC, through the National Marine Fisheries Service, (NMFS) has jurisdiction over all marine mammals with the exception of manatees and dugongs, walrus, polar bears and sea otters which the Department of the Interior manages.

The MMPA allows the Secretaries to authorize the incidental taking of a small number of marine mammals by U.S. citizens who engage in a specified lawful activity within a

specified geographical region. This is provided that the total number of takes will have no more than a negligible impact on affected species and will not have an unmitigable adverse impact on subsistence hunting.

Laying cable on the seabed could potentially result in the incidental taking of marine mammals due to the elevated noise levels and vessel traffic associated with the laying of cable and entanglement of whales in the cable. NMFS regulations governing the small take authorization program are at 50 C.F.R. 216.101 et seq. The regulations provide for expedited one year authorizations for takes by harassment only and for five year authorizations covering all forms of takes.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), 16 U.S.C. 1801 et seq., administered by NMFS is the primary federal fishery management authority. The law established a national program to conserve and manage the nation's fishery resources and their habitats so the United States can achieve the full potential of its fishery resources. In addition to the Act's focus on managing fishing activities, the most recent amendments in 1996 (P.L. 104-297) included language to protect "essential fish habitat" (EFH) for each of more than 700 species under federal authority. The new EFH mandate requires consultation with NMFS for any project that may adversely affect habitats of federally-managed species.

The regulations governing EFH consultations are found at 50 C.F.R. Part 600, Subpart k. Where possible, EFH will be implemented by using traditional environmental review processes associated with the National Environmental Policy Act, Fish and Wildlife Coordination Act, Endangered Species Act, or other laws, thereby eliminating the need for separate permit reviews or public comment periods.

Submarine cable projects will trigger this EFH consultation process whenever a federal permit, license, or other action is needed, if the proposed activity may adversely affect EFH. Except in rare situations, the EFH consultation will be conducted between field offices of the action agency and NMFS. Regional NMFS offices have maps, tables, and reports documenting areas designated as EFH and can work with the authorizing agency and industry to determine whether a submarine cable project affects EFH. In combination with any documents associated with the traditional environmental review process (permit application, engineering plans, NEPA documents), an EFH Assessment must be prepared describing how the proposed project may affect EFH. The appropriate level of detail required in the consultation will depend on the proposed action and its potential impact on EFH.

Coastal Zone Management Act

States with coastal management programs approved by the DOC pursuant to the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq., (this includes all coastal states), have the authority to review federal activities affecting any land or water use or natural resource of the coastal zone for consistency with their approved state CZM program. This review authority includes the review of all federal agency permits (e.g., Army Corps of Engineers Section 10/404 permits and marine sanctuary permits). In the case of Federal permits, Federal agencies may not issue permits that are inconsistent with a state's approved program, unless, after an appeal by the applicant to DOC, an override decision is made based on certain criteria.

Companies with proposed submarine cable projects should contact the relevant state coastal management program agencies or NOAA's Office of Ocean and Coastal Resource Management, Federal Consistency Office, as early as possible in the federal application process.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969, (42 U.S.C. 4321 et seq., is the foundation of modern American environmental protection in the United States and its commonwealths, territories, and possessions.

NEPA requires that Federal agency decision-makers, in carrying out their duties, use all practical means to create and maintain conditions under which people and nature can exist in productive harmony and fulfill the social, economic, and other needs of present and future generations of Americans.

NEPA provides a mandate and a framework for Federal agencies to consider all reasonably foreseeable environmental effects of their proposed actions and to involve and inform the public in the decision-making process.

NOAA's Administrative Order 216-6 (updated May 20, 1999) describes NOAA's policies, requirements, and procedures for complying with NEPA and the implementing regulations issued by the Council on Environmental Quality (CEQ) as codified in Parts 1500-1508 of Title 40 of the Code of Federal Regulations (40 CFR Parts 1500-1508) and those issued by DOC in Department Administrative Order (DAO) 216-6, Implementing the National Environmental Policy Act.

NEPA applies to any proposed action for which a federal nexus exists, such as federal funding, permitting, or approval. Examples include Army Corps of Engineers (ACOE) 404 permits, ESA section 7 consultations for incidental take statements, or authorization for actions within a national marine sanctuary. Applicants for such permits or authorizations may be an individual, a private organization, or a Federal, state, tribal, territorial, or foreign governmental body. Based on the action and its impact on the quality of the human environment, a level of environmental review is required (i.e., categorical

exclusion, environmental assessment, or environmental impact statement).

NEPA documents may be stand-alone or combined with associated reviews such as those for state permits or Federal consistency certification. The latter, joint documentation, is preferred to reduce duplication and expedite review and clearance processes. When combined with other review processes, early coordination is essential to produce final documentation that is acceptable to all approving parties. NEPA documents are sometimes prepared by a contractor; in such cases, the documents must be cleared by the Federal agency prior to final action being taken.

For the purpose of a proposed submarine cable to transit the coastal zone including a portion of a national marine sanctuary, several permits or approvals may be required (e.g., ACOE 404, NMSA permit or other authorization, and state permits and Federal consistency certification), each requiring federal or state environmental review. After providing sufficient background information on the proposed action to the involved agencies, the requisite level of review is determined, and a NEPA document is prepared and circulated for public review as appropriate. Upon completion, final NEPA documents are cleared by the agency(s) and a determination is made on the applicable authorization(s) or permits(s). No final action by an applicant may occur prior to completion of the NEPA review process

National Historic Preservation Act

The National Historic Preservation Act (NHPA), 16 U.S.C. 470 et seq., directs federal agencies to develop programs to protect their cultural and historic properties. Section 106 of the NHPA directs that all federal or federally-funded undertakings, including federally permitted activities, be reviewed to ensure that no historic properties are negatively affected. The federal agency (in this case NOAA) must work in cooperation with states and the Advisory Council on Historic Preservation to minimize or prevent damage to the resources.

Submarine Cable Landing License Act

Pursuant to the Submarine Cable Landing License Act (47 U.S.C. 34-39) the President must grant permission to any entity planning to land a submarine cable in the United States. This statute requires an entity to get permission before it is allowed to land and operate a submarine cable from any point outside the continental United States onto the continental United States.

In a related Executive Order (E.O. 10530) the President delegated authority to the Federal Communications Commission (FCC) to grant, deny, or condition submarine cable landing licenses, except that no license can be granted or revoked without the FCC first obtaining approval from the Secretary of State and advice from any executive department of the

Government as the Commission may deem necessary. National Telecommunications and Information Administration (NTIA), an agency within the Department of Commerce, advises the Department of State and the FCC on all submarine cable landing license applications. The factors NTIA considers in reviewing these applications involve competition issues and consumer matters.

III. PROPOSED PRINCIPLES

The Department of Commerce has stewardship responsibilities for the nation's economy and the marine and coastal environment. For the issue of submarine cables, these responsibilities are centered in NOAA.

In setting out to establish its guiding principles for the installation of submarine cables, the Department takes very seriously its stewardship responsibilities with respect to the economic and social benefits derived from these cables and the environmental effects their installation and maintenance may cause. In doing so, the Department has reached out to the business and environmental communities to foster the sharing of information, concerns, and ideas.

Below is a summary of key issues identified through these exchanges. These issues have provided the foundation for the development of the draft principles and for further discussion as the Department continues to define its approach to submarine cables in the marine and coastal environment.

From the business community, we heard the following:

- Submarine cables provide high-speed broadband connectivity and capacity for large geographic areas that are also important centers of trade and communication.
- Submarine cables alleviate existing capacity constraints and meet the demand for future growth.
- Submarine cables provide emergency routing alternatives to existing land-based telecommunication systems that are susceptible to quakes, flooding, storms.
- Installation can be a low impact process (e.g., small diameter cables, plow digs small trench, cable buried to one meter), especially when compared to other commercial activities currently allowed in the marine environment.
- Submarine cables carry heavy international communication traffic without the transmission delays associated with satellites.
- Speed to market is critical and competition is fierce (200 new cable systems with over 1000 shore landings projected by 2003).
- A more succinct and clear policy for submarine cables would alleviate the current confusion over the approval of such projects.

From the environmental community, we heard the following:

- Little data exists on cumulative impacts on the environment associated with the installation, maintenance, and repair of submarine cables.
- Sanctuaries and areas of sensitive habitat should be avoided, with some declared off limits.
- NOAA needs to develop policies and regulations for non-sanctuary waters as well.
- Additional information is needed on the immediate and long-term impacts of fiber optic systems.
- Fishing conflicts and gear issues must be resolved.
- Reassurance is needed to demonstrate that impacts are indeed low, as industry claims,

and that submarine cables are and will remain buried. Regular monitoring of installed submarine cables should be mandatory, based on set of baseline standards.
- A more succinct and clear policy for submarine cables would alleviate the current confusion over the approval of such projects.

In addition, NOAA is guided by several laws protecting natural and cultural resources, fisheries, marine sanctuaries, and the very processes by which government operates.

The following principles reflect these discussions and the legal framework through which the Department must operate. These proposed principles form the basis for an ongoing discussion leading to the development of a final set of principles for the installation and maintenance of submarine cables.

1. *Information is central to efficient and effective decision-making, and NOAA's decision-making process should lead to better information flow and information gathering.*
For business, environment, and government alike, accurate information about the environmental effects of submarine cables on the marine environment, expectations for completing permit reviews, project routing and implementation, and ongoing maintenance needs are vital. In some cases, such as the environmental effects, this information is lacking.

   Implementation steps:
   a. NOAA will continue to work with industry, environment, and other agencies (e.g., Navy, USGS, ACOE) to collect information about existing submarine cable projects and the known environmental effects of installation and maintenance.
   b. NOAA permits for submarine cable projects will require that applicants collect and analyze data on the environmental effects of cable installation, operation and maintenance. Those conditions will apply for the life of the permit. For any "out of service" cable that remains in the marine environment, the project proponent must retain responsibility for such cable (e.g., if the cable becomes unburied).
   c. For those projects where NOAA does not have a permitting role, NOAA will work with other permitting agencies to ensure that its environmental concerns under ESA, MMPA, MSFCMA, NMSA, and other authorities are fully adopted or considered, where required or as appropriate.
   d. NOAA will convene interested industry and environmental representatives from time to time to review new data and technologies, evaluate guidelines, and otherwise continue the sharing of information.

2. *The efficient review of proposed projects is in the best interests of all parties.*
Industry has described "speed to market" as a driving force in the submarine cable business. As such, it has stated the importance of a timely and predictable review of projects, particularly where NOAA permits are required. In addition, it is in the best interest of effective management of the marine and coastal environment to be

able to quickly and effectively determine the proper course of action for submarine cable projects, without compromising NOAA's trustee responsibilities.

Implementation steps:

a. NOAA will consider whether it can as a general matter (legally and from a policy standpoint) approve projects when they are in the planning stages. NOAA would base such "planning approvals" on specific routes, technologies, monitoring and maintenance protocols, and other factors.
b. NOAA will coordinate necessary consultations under the ESA, MSFCMA, and NMSA.
c. NOAA will consider the impacts and merits of establishing submarine cable "routes" that direct cable installations into and out of landing stations in such a way as to minimize individual and cumulative environmental effects.
d. NOAA will establish points of contact for submarine cable projects. These individuals will be responsible for coordinating reviews and outreach within the Department. In addition, NOAA will maintain records and data on submarine cable projects in order to further improve internal review and external compliance.

3. *National marine sanctuaries are special places of the marine environment set aside as protected areas for their national significance. As such, they are afforded a higher level of protection.*

Within each sanctuary certain types of activities, including activities inherent to laying, operating, repairing, and removing submarine cables, have been determined to be generally incompatible with the statutory objective of resource protection and are therefore prohibited by regulation.

Under certain limited circumstances some prohibited activities may be allowed, but as a matter of policy laying of submarine cables within sanctuaries is discouraged. NOAA will base its review of projects proposed within marine sanctuaries to ensure resource protection, particularly where uncertainty exists as to the extent of impact of a proposed project to the sanctuary environment.

Implementation steps:

a. It is NOAA's view that sanctuary size, unique characteristics (e.g., fragile habitats, cultural resources, etc.) and existing regulations preclude the installation of submarine cables in the following marine sanctuaries:
    1) Cordell Bank, San Francisco, CA;
    2) Channel Islands, Santa Barbara, CA (within 2 nautical miles of the islands, as prohibited);
    3) Gulf of Farallones, San Francisco, CA;
    4) Fagatele Bay, American Samoa;

5) Gray's Reef, Savannah, GA;
6) MONITOR, Outer Banks, NC;
7) Flower Garden Banks, Gulf of Mexico, TX.

b. Projects in those sites where cable laying activities are not prohibited (i.e., Channel Islands NMS outside of 2 nautical miles from the islands, Hawaiian Island Humpback Whale NMS, when conducted under valid State or Federal permit) are subject to the consultation provisions (sec.304(d)) of the NMSA and will be evaluated by NOAA similarly to those projects requiring sanctuary approval.

c. NOAA will consider whether a programmatic environmental impact statement could be prepared for the proposed installation of submarine cables in marine sanctuaries. Such a document would clearly describe the permit limitations for projects in specific sanctuaries or habitat types.

d. Those sites where proposals for installation and operation of submarine cables would be considered are Monterey Bay, Olympic Coast, Florida Keys, and Stellwagen Bank sanctuaries. NOAA will identify fragile habitats and known archaeological sites wherein installation of submarine cables will be prohibited under any circumstances near the immediately surrounding area. These are expected to include the following:
1) Rocky, hard bottom areas (habitat) where cable cannot be buried or covered - hard bottom limestone reef areas in particular;
2) Coral reef and associated hard bottom areas;
3) Sea grass areas;
4) Mangrove islands;
5) Areas likely to have cultural resources, such as historic shipwrecks;
6) Kelp forests;
7) Habitat for endangered or threatened species;
8) Areas set aside as "no take" zones or "marine or ecological reserves."

e. The following minimum criteria must be met for any submarine cable to be considered in a sanctuary:
1) there is no feasible alternative to transiting the Sanctuary;
2) impacts to sanctuary resources, including impacts to cultural resources and cumulative impacts, from installation, maintenance, long-term operation, and removal, are determined to be negligible and short-term. This is determined within the context of the overall environmental analysis;
3) appropriate mitigation, including monitoring of impacts of the activity, is included and paid for by the project proponent; and
4) the applicant agrees to remove all or part of the cable at the end of its life,

if determined appropriate by NOAA

f. A specific proposal will be considered following the applicable review and criteria unique to the specific sanctuary in which the application is submitted. Installation of a previous cable within any given sanctuary does not ensure installation of additional cables in that sanctuary or others in the system. Exact routes and alternatives, and cumulative impacts will be evaluated in the environmental analysis.

g. For every project considered, analysis must include, but is not limited to, the following topics:
   1) cumulative impacts;
   2) feasible alternatives to transiting the Sanctuary, including alternative routes over land;
   3) impacts to habitat from laying the cable (e.g., trenching) and long term placement of the cable in its location;
   4) potential for impacts on sensitive, threatened and endangered species and their habitats;
   5) potential impact to cultural resources, using remote-sensing survey, sonar and magnetometer;
   6) impacts of removing the cable at the end of its useful life; and
   7) impacts on other interests (e.g., fishing interests).

h. Pursuant to sanctuary regulations, a fee will be assessed for any approved project. This fee includes:
   1) costs incurred, or expected to be incurred, of issuing the permit;
   2) costs incurred, or expected to be incurred, as a direct results of the activities (including monitoring); and
   3) the fair market value of the use of the sanctuary and a reasonable return to the U.S. Government.

4. The Department believes that just as the submarine cable industry is growing, the principles guiding its review of submarine cable proposals must also continue to evolve.